



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,413	12/05/2003	Setho Sing Fec	2269-4738.1US (00-1113.01)	9766
24247	7590	10/04/2005	EXAMINER CHAMBLISS, ALONZO	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			ART UNIT 2814	PAPER NUMBER

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,413

Applicant(s)

FEE ET AL.

Examiner

Alonzo Chambliss

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-12 and 14-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4, 6-12 and 14-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed on 9/9/05 has been made of record in the instant application.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4, 6-12, and 14-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 11 is objected to because of the following informalities: claim 11 depends on itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 10-12, and 14 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Yamaguchi (U.S. 6,081,029).

With respect to Claims 1-4, Yamaguchi teaches each of a plurality of discretely defined leads 12 and including at least one lead having, a first bonding region (i.e. to the left of the notch), a second bonding region (i.e. to the right of the notch), and a severance region (i.e. notch) located between the first bonding region and second region, the severance region being configured to facilitate separation of the first bonding region from the second bonding region (see col. 18 lines 1-67, col. 19 lines 1-67, and col. 20 lines 1-47; Figs. 14a, 14b, 15a, 15b, and 16-18).

With respect to Claims 10 and 14, Yamaguchi teaches a die paddle 13 and at least one tie bar 14 coupling the die paddle and the outer frame portion (see Figs. 10, 11a, 11b, 12, 13a, 13b, 14a, 14b, 15a, 15b, 16-18).

With respect to Claims 11 and 12, Yamaguchi teaches wherein the plurality of discretely defined leads is disposed about a peripheral outline (i.e. including peripheral edges) of the die paddle 13 (see Figs. 14a, 14b, 15a, 15b, and 16-18).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6-9 and 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (US 6,081,029) as applied to claim 1 above, and further in view of Bayan et al. (US 6,399,415).

With respect to Claim 6, Yamaguchi discloses a lead frame including an outer frame portion bearing a plurality of inwardly extending, cantilevered leads each lead of the plurality having thereon at least two longitudinally spaced locations separated by a severance region comprising a notch extending laterally across each lead (see col. 18 lines 1-67, col. 19 lines 1-67, and col. 20 lines 1-47; Figs. 14a, 14b, 15a, 15b, and 16-18). Yamaguchi fails to disclose a plurality of longitudinally arranged lead frames, wherein each lead frame includes an outer frame portion bearing a plurality of inwardly extending cantilevered leads. It is well known in the semiconductor industry to have a plurality of longitudinally arranged lead frames, wherein each lead frame includes an outer frame portion bearing a plurality of inwardly extending cantilevered leads as evident by Bayan Figs. 1A-1C). Therefore, one skilled in the art at the time of the invention would readily recognize having a plurality of lead frames wherein each lead frame includes an outer frame portion bearing a plurality of inwardly extending cantilevered leads, since the plurality of lead frames would facilitate mass production of

IC packages at the same time while reducing the time to needed to produce the plurality of IC packages as taught by Bayan.

With respect to Claims 7-9, Yamaguchi discloses wherein each outer frame portion further bears a die paddle substantially centered therein and a plurality of inwardly extending cantilevered leads is located on a plurality of sides (i.e. four sides) of each outer frame portion (see Figs. 1A, 1B, and 7).

With respect to Claim 15, Yamaguchi teaches each of the at least two longitudinally spaced locations of each lead is can be configured as a bonding region (see Figs. Figs. 14a, 14b, 15a, 15b, and 16-18)

With respect to Claim 16, Yamaguchi teaches the plurality of inwardly extending, cantilevered leads are disposed about a peripheral outline of the die paddle (see Figs. 14a, 14b, 15a, 15b, and 16-18).

With respect to Claim 17, Bayan teaches each lead frame further including at least one tie bar electrically coupling the die paddle and the outer frame portion (see Fig. 1A-1C, and 7).

The prior art made of record and not relied upon is cited primarily to show the product of the instant invention.

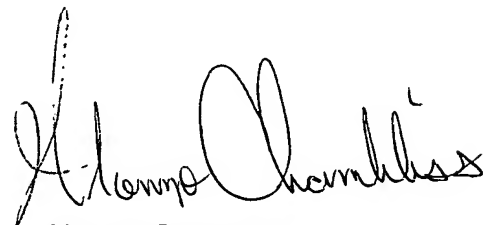
Conclusion

8. Any inquiry concerning the communication or earlier communications from the examiner should be directed to Alonzo Chambliss whose telephone number is (571) 272-1927.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-7956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system Status information for published applications may be obtained from either Private PMR or Public PMR. Status information for unpublished applications is available through Private PMR only. For more information about the PMR system see <http://pair-dkect.uspto.gov>. Should you have questions on access to the Private PMR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or EBC_Support@uspto.gov.

AC/October 1, 2005

A handwritten signature in black ink, appearing to read 'Alonzo Chambliss', with a stylized flourish at the end.

Alonzo Chambliss
Primary Patent Examiner
Art Unit 2814